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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/451,084	11/30/1999	MIKHAIL AKOPYAN	PM-264880	8576
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ARTHUR J. O'DEA LEGAL DEPARTMENT COGNEX CORPORATION ONE VISION DRIVE NATICK, MA 01760-2077			EXAMINER KIBLER, VIRGINIA M	
			ART UNIT 2623	PAPER NUMBER <i>18</i>
DATE MAILED: 06/03/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/451,084	AKOPYAN ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Virginia M Kibler	2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 17 March 2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-36 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a)  The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                   | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by Nichani et al. (5,673,334).

Regarding claim 6, Nichani discloses a method for inspecting a spatially distorted pattern (Col. 3, lines 65-67). The method comprises running a coarse alignment tool to approximately locate the pattern (Col. 11, lines 9-11), using search tree information (Col. 9, lines 17-21) and an approximate location of a root sub-region found by the coarse alignment tool (Col. 11, lines 6-11) to locate a plurality of sub-regions sequentially in an order according to the search tree information. Note, Nichani discloses the windows should be big enough to accommodate the uncertain orientation of the package at run time (Col. 7, 43-46). However, a conventional inspecting method is used to reliably inspect each window or “sub-region” (Col. 12, lines 14-17) using respective models (Col. 6, lines 26-30), thereby the size of each sub-regions is small enough such that a conventional inspecting method can reliably inspect each of the sub-regions using respective models. The method also includes inspecting each of the sub-regions (Col. 13, lines 53-54) so as to produce a difference image for each of the sub-regions (Col. 14, lines 23-34).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3, 4, 14, 21, 25, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) in view of Rosser et al. (5,627,915).

Regarding claim 1, Nichani et al. (“Nichani”) discloses a method for training a system to inspect a spatially distorted pattern (Col. 3, lines 65-67). The method comprises receiving a digitized image of an object 54 (Figure 4). The image includes a region of interest which is divided into a plurality of windows, thereby “sub-regions” (Col. 7, 40-43). Note, Nichani discloses the windows should be big enough to accommodate the uncertain orientation of the package at run time (Col. 7, 43-46). However, a conventional inspecting method is used to reliably inspect each window or “sub-region” (Col. 12, lines 14-17), thereby the size of each sub-regions is small enough such that a conventional inspecting method can reliably inspect each of the sub-regions. Nichani also discloses training a search tool and an inspection tool for a respective model for each of the plurality of sub-regions (Col. 6, lines 26-30), building a search tree for determining an order for inspecting the plurality of sub-regions (Col. 9, lines 17-21), and training a coarse alignment tool 56 (Figure 4) for the region of interest (Col. 5, lines 55-58). Nichani does not recognize dividing the region of interest in its entirety or using a single search tree. However, Rosser et al. (“Rosser”) teaches that it is known to divide the region of interest in

its entirety into a plurality of sub-regions (Col. 5, lines 43-46) and use a single search tree for determining an order for inspecting each sub-region of the plurality of sub-regions at a run-time (Col. 5, lines 41-52). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the dividing the region of interest and the plurality of trees disclosed by Nichani to include dividing the region of interest in its entirety and using only a single tree, as taught by Rosser, in order to increase the speed of the computation.

Regarding claim 3, Rosser does not appear to expressly state establishing the order so that transformation information for located ones of the sub-regions is used to minimize a search range for neighboring ones of the sub-regions. However, Rosser discloses establishing a predetermined sequence in order to rapidly ascertain (Col. 7, lines 46-52). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the predetermined sequence disclosed by Rosser to include explicitly stating minimizing a search range in order to rapidly ascertain the sought after target.

Regarding claim 4, Nichani discloses that the training of the search tool for the respective model for each of the plurality of sub-regions is performed by using a correlation search (Col. 11, lines 16-19).

Regarding claim 27, the arguments analogous to those presented above for claim 1 are applicable to claim 27. Claim 27 is drawn to a medium having stored therein machine-readable information. While Nichani does not appear to explicitly mention a medium having stored therein machine-readable information, this would have been clearly obvious in light of Nichani's disclosure. Note, Nichani's disclosure mentions "software" (Col. 9, line 59) and

“microprocessor” (Col. 1, line 36), thereby establishing his system as being or relating to a computer based system.

Regarding claim 28, the arguments analogous to those presented above for claim 3 are applicable to claim 28.

Regarding claim 14, Nichani discloses a method and apparatus for inspecting a spatially distorted pattern (Abstract, lines 1-2). The arguments analogous to those presented above for claim 1 are applicable to claim 14. Nichani discloses a memory for storing a digitized image of an object (Col. 5, lines 39-43), a region divider for dividing the digitized image of a region of interest into a plurality of sub-regions (Col. 7, 40-43), a coarse alignment 56, a search mechanism (Col. 3, lines 65-67) for locating each of the sub-regions sequentially in an ordered based on search tree information (Col. 4, lines 1-4), and an inspector for inspecting the sub-regions (Col. 4, lines 28-29).

Regarding claim 21, the arguments analogous to those presented above for claims 1, 6, and 14 are applicable to claim 21.

Regarding claim 25, the arguments analogous to those presented above for claim 3 are applicable to claim 25.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) in view of Rosser et al. (5,627,915) as applied to claim 1 above, and further in view of Cipolla et al. (5,581,276).

Regarding claim 2, Nichani and Rosser do not recognize the need for the size of the sub-regions to be small enough such that each of the sub-regions is well approximated by an affine transformation. However, Cipolla et al. (“Cipolla”) teaches that it is known that the size of an

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image region must be sufficiently small such that the region is well approximated by an affine transformation (Col. 8, lines 62-64), as broadly as claimed. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the plurality of sub-regions as disclosed by Nichani and Rosser to specify the size of each of the sub-regions being small enough such that each sub-region is well approximated by an affine transform, as taught by Cipolla, in order to reliably inspect each of the sub-regions.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) as applied to claim 6 above, and further in view of Cipolla et al. (5,581,276).

Regarding claim 10, Nichani does not recognize the need for the size of the sub-regions to be small enough such that each of the sub-regions is well approximated by an affine transformation. However, Cipolla et al. (“Cipolla”) teaches that it is known that the size of an image region must be sufficiently small such that the region is well approximated by an affine transformation (Col. 8, lines 62-64), as broadly as claimed. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the plurality of sub-regions as disclosed by Nichani to specify the size of each of the sub-regions being small enough such that each sub-region is well approximated by an affine transform, as taught by Cipolla, in order to reliably inspect each of the sub-regions.

7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) in view of Rosser et al. (5,627,915) as applied to claim 14 above, and further in view of Cipolla et al. (5,581,276).

Regarding claim 17, the arguments analogous to those presented above for claim 2 are applicable to claim 17.

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8. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) in view of Rosser et al. (5,627,915) as applied to claim 21 above, and further in view of Cipolla et al. (5,581,276).

Regarding claim 24, the arguments analogous to those presented above for claim 2 are applicable to claim 24.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) in view of Rosser et al. (5,627,915) as applied to claim 1 above, and further in view of Aiyer et al. (5,777,729).

Regarding claim 5, Nichani discloses training the inspection tool for the respective model for each of the sub-regions (Col. 6, lines 26-30). Nichani does not disclose performing the training by using a golden template comparison method. However, Aiyer et al. ("Aiyer") teaches that it is known to train the inspection tool for the respective model for each of the plurality of sub-regions performed by using a golden template comparison method (Col. 7, lines 64-67 and Col. 8, lines 1-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the training of the inspection tool disclosed by Nichani and Rosser to use the golden template comparison method, as taught by Aiyer, in order to provide more effective training.

10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) as applied to claim 6 above, and further in view of Aiyer et al. (5,777,729).

Regarding claim 13, the arguments analogous to those presented above for claim 5 are applicable to claim 13. Aiyer discloses inspecting each of the sub-regions by a golden template method (Col. 7, lines 46-57). Therefore, it would have been obvious to one of ordinary skill in

the art at the time of the invention to have modified the inspection of the sub-regions disclosed by Nichani to include using a golden template method, as taught by Aiyer, in order to provide a more effective method of inspection.

11. Claim 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,637,334) in view of Rosser et al. (5,627,915) as applied to claim 14 above, and further in view of Aiyer et al. (5,777,729).

Regarding claim 20, the arguments analogous to those presented above for claims 13 and 14 are applicable to claim 20.

12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,627,334) as applied to claim 6 above, and further in view of Miyake (6,009,213).

Regarding claim 11, Nichani discloses inspecting each of the sub-regions (Col. 13, lines 53-54). Nichani does not recognize using transformation information from located ones of sub-regions to interpolate transformation information for a sub-region when the sub-region cannot be located. However, Miyake teaches that it is known to use interpolation based on transformed information for a sub-region (Col. 5, lines 62-65), as broadly as claimed. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the inspection method disclosed by Nichani to include interpolation based on transformation information, as taught by Miyake, and then use the interpolated transformation information to inspect the sub-region in order to inspect sub-regions that cannot be located.

13. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) in view of Rosser et al. (5,627,915) as applied to claim 14 above, and further in view of Miyake (6,009,213).

Regarding claim 18, Nichani discloses inspecting each of the sub-regions (Col. 13, lines 53-54). Nichani does not recognize using transformation information from located ones of sub-regions to interpolate transformation information for a sub-region when the sub-region cannot be located. However, Miyake teaches that it is known to use interpolation based on transformed information for a sub-region (Col. 5, lines 62-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the inspection method disclosed by Nichani and Rosser to include interpolation based on transformation information, as taught by Miyake, and then use the interpolated transformation information to inspect the sub-region in order to inspect sub-regions that cannot be located. Note, Miyake disclose an image processing apparatus and method (Col. 2, lines 46-47).

14. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) in view of Rosser et al. (5,627,915) as applied to claim 21 above, and further in view of Miyake (6,009,213).

Regarding claim 26, the arguments analogous to those presented above for claim 18 are applicable to claim 26.

15. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) in view of Rosser et al. (5,627,915) as applied to claim 27 above, and further in view of Miyake (6,009,213).

Regarding claim 32, the arguments analogous to those presented above for claims 27 and 11 are applicable to claim 32. Nichani discloses running a search tool on the sub-regions (Col. 3, lines 65-67). Nichani does not disclose running a search tool on the sub-region based on the interpolated transformation information. However, Miyake teaches that it is known to use

interpolation based on transformed information for a sub-region (Col. 5, lines 62-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the search tool disclosed by Nichani to include running the search tool on the sub-region based on the interpolated transformation information, as taught by Miyake, in order to inspect sub-regions that cannot be located.

16. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) as applied to claim 6 above, and further in view of Clark et al. (6,370,197).

Regarding claim 33, Nichani discloses using a search tool to locate the plurality of sub-regions (Col. 9, lines 17-21). Nichani does not disclose dividing the sub-regions into smaller sub-regions when one of the sub-regions cannot be located. However, Clark et al. (“Clark”) teaches that it is known to further sub-divide a block or “sub-region” when a condition is not met after inspection of the sub-region (Abstract, lines 2-7). Therefore, it would have been obvious to one of ordinary skill in the art to have modified the search tool disclosed by Nichani to include dividing one of the sub-regions into a plurality of smaller sub-regions when the one of the sub-regions cannot be located during the use of the search tree information by applying Clark’s teaching to further sub-divide a sub-region when a condition is not met, in order to locate the sub-region that could not be located by the search tree information.

17. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) as applied to claim 6 above, and further in view of Dance et al. (6,285,799).

Regarding claim 12, Nichani discloses training a search tool and an inspection tool for a respective model for each of sub-regions (Col. 6, lines 26-30). Nichani does not recognize using the respective models for some of the sub-regions to determine respective transformation

information. However, Dance et al. ("Dance") teaches that it is known to determine transformation information (Col. 9, lines 63-64). Dance also teaches that it is known to predict registration results by using the respective transformation information (Col. 9, lines 63-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the training method disclosed by Nichani to include determining transformation information and predicting registration results by using the transformation information, as taught by Dance, in order to correct blurred images recorded by digital cameras (Col. 3, lines 6-17) and thereby compensate for training that was not successfully performed on a sub-region.

18. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) in view of Rosser et al. (5,627,915) as applied to claim 14 above, and further in view of Dance et al. (6,285,799).

Regarding claim 19, Dance discloses a method and apparatus (Col. 3, line 21). The arguments analogous to those presented above for claim 12 are applicable to claim 19.

19. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) in view of Rosser et al. (5,627,915) as applied to claim 27 above, and further in view of Barnard (5,604,819).

Regarding claim 29, the arguments analogous to those presented above for claim 6 and 27 are applicable to claim 29. Nichani discloses inspecting each of the sub-regions (Col. 13, lines 53-54). Nichani does not disclose producing a difference image or a match image. However, Barnard teaches that it is known to produce difference images (Col. 16, lines 32-33) as well as match images (Col. 13, lines 26-27). Therefore, it would have been obvious to one of

ordinary skill in the art at the time of the invention to have modified the inspection as disclosed by Nichani and Rosser to include producing difference images and match images, as taught by Barnard, in order to further inspect each sub-region.

20. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) as applied to claim 6 above, and further in view of Companion et al. (6,330,354) and in view of Barnard (5,604,819).

Regarding claim 8, Nichani discloses inspecting each of the sub-regions (Col. 13, lines 53-54). The method also includes inspecting each of the sub-regions (Col. 13, lines 53-54) so as to produce a difference image for each of the sub-regions (Col. 14, lines 23-34). Nichani does not appear to specify producing both a difference image and a match image. However, Companion teaches that it is known to produce a difference image for each of the sub-regions (Col. 5, lines 1-7). Companion also teaches that it is known to combine the difference images into a single difference image (Col. 6, lines 10-12). Companion does not disclose producing a match image. However, Barnard teaches that it is known to produce difference images (Col. 16, lines 32-33) as well as match images (Col. 13, lines 26-27). Therefore, it would have been obvious to one of ordinary skill in the art to have modified the inspection as disclosed by Nichani to include producing and combining difference images, as taught by Companion, as well as match images, as taught by Barnard, in order to further inspect each sub-region.

21. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) in view of Rosser et al. (5,627,915) as applied to claim 14 above, and further in view of Companion et al. (6,330,354) and Barnard (5,604,819).

Regarding claim 16, the arguments analogous to those presented above for claim 8 are applicable to claim 16.

22. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani (5,673,334) in view of Rosser et al. (5,627,915) as applied to claim 21 above, and further in view of Companion et al. (6,330,354) and Barnard (5,604,819).

Regarding claim 23, the arguments analogous to those presented above for claim 8 are applicable to claim 23.

23. Claim 30 rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) in view of Rosser et al. (5,627,915) and Barnard (5,604,819) as applied to claim 29 above, and further in view of Companion et al. (6,330,354).

Regarding claim 30, the arguments analogous to those presented above for claim 8 are applicable to claim 30.

24. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) as applied to claim 6 above, and further in view of Michael et al. (5,825,483).

Regarding claim 7, Nichani discloses using the location information to make a pass/fail decision based on a threshold (Col. 13, lines 53-56). Nichani does not appear to expressly state the threshold being user-specified. However, it is well known in to provide user-specified thresholds, thereby user-specified tolerances. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the threshold disclosed by Nichani to include user-specified tolerances in order to allow the user to compensate for various situations. Nichani does not disclose combining all location information to produce a distortion vector for each of the sub-regions. However, Michael et al. (“Michael”) teaches that it is known

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to combine location information for each of the sub-regions (Col. 9, lines 22-25) to produce a distortion vector field (Col. 7, lines 49-58). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the location information disclosed by Nichani to include producing a distortion vector field, as taught by Michael, in order to visualize the distortion information.

25. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) in view of Rosser et al. (5,627,915) as applied to claim 14 above, and further in view of Michael et al. (5,825,483).

Regarding claim 15, the arguments analogous to those presented above for claim 7 are applicable to claim 15.

26. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) in view of Rosser et al. (5,627,915) as applied to claim 21 above, and further in view of Michael et al. (5,825,483).

Regarding claim 22, the arguments analogous to those presented above for claim 7 are applicable to claim 22.

27. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) in view of Michael et al. (5,825,483).

Regarding claim 34, the arguments analogous to those presented above for claims 6 and 7 are applicable to claim 34.

28. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) in view of Rosser et al. (5,627,915) and further in view of Michael et al. (5,825,483).

Regarding claim 35, the arguments analogous to those presented above for claims 14 and 7 are applicable to claim 35.

29. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) in view of Michael et al. (5,825,483).

Regarding claim 36, the arguments analogous to those presented above for claims 6 and 7 are applicable to claim 36. Note, claim 36 is drawn to a medium having stored therein machine-readable information. While Nichani does not appear to explicitly mention a medium having stored therein machine-readable information, this would have been clearly obvious in light of Nichani's disclosure. Note, Nichani's disclosure mentions "software" (Col. 9, line 59) and "microprocessor" (Col. 1, line 36), thereby establishing his system as being or relating to a computer based system.

30. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) in view of Rosser et al. (5,627,915) in further view of Barnard (5,604,819) as applied to claim 29 above, and further in view of Michael et al. (5,825,483).

Regarding claim 31, the arguments analogous to those presented above for claim 7 are applicable to claim 31.

31. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichani et al. (5,673,334) in view of Michael et al. (5,825,483) as applied to claim 7 above, and further in view of Companion et al. (6,330,354) and Barnard (5,604,819).

Regarding claim 9, the arguments analogous to those presented above for claim 8 are applicable to claim 9.

***Conclusion***

32. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Contact Information***

33. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia M Kibler whose telephone number is (703) 306-4072. The examiner can normally be reached on Mon. - Thurs. 8:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703) 308-6604. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

VK

June 2, 2003



AMELIA M. AU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600